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SOVIET QUICKENS RACE FOR SPACE

New Test Plan Strengthens Warnings of U. S. Experts —Boosters Are Key

By RICHARD WITKIN

The Soviet Union's impending tests of a huge new rocket in the Central Pacific lend added substance to the warnings of many space experts here that the United States' position in the space race is getting worse.

It has been generally acknowledged that it would be 1961 before this country could hope to launch payloads equal in size and weight to those the Soviet Union has already launched.

The Soviet Union now signifies its intention to be well down the road by the time the United States draws abreast of the milestones put down by the first three sputniks and the first three moon shots.

What is handicapping the United States is simply the size of main-stage rockets available for space missions.

The largest rocket booster currently in operation here is the Atlas, which generates a thrust of about 360,000 pounds.

600,000 Pounds

Official estimates put the thrust of the main-stage rocket used in the latest Soviet space missions at somewhere between 600,000 and 800,000 pounds.

The United States hopes to bridge this gap in 1961 by mounting a new Centaur, using high-energy liquid hydrogen for fuel, atop an Atlas.

By 1963 or 1964, the National Aeronautics and Space Administration hopes to have perfected the 1,500,000 - pound - thrust Saturn.

This is designed to put really sizable vehicles into space—a 30,000-pound satellite in a 300-mile-high orbit or a 7,000-pound payload on the moon.

But, if the Soviet announcement of plans to test new rocket giants can be taken at face value, not even the Saturn is likely to overcome the Soviet lead.

Important Points

At least two notes of caution must be sounded, however, in any attempt to assess the significance of the latest Soviet move.

First, sheer size of rockets and the vehicles they can catapult into orbit or beyond is only one measure, though an important one, of a country's capabilities. The United States competes favorably in other fields, such as guidance and data recovery. And there is some feeling that this country has acquired more useful scientific data.

Second, the Soviet announcement could be intended more as propaganda than as a firm indication of concrete accomplishments in the offing. Its timing on the day of President Eisenhower's message to Congress—a message that made a great point of United States strides in rocketry—is not likely to have been pure accident.

Still, the Soviet announcement cannot help but confirm the fears of a wide majority of this nation's space experts that the Soviet lead in space will grow rapidly larger unless this country speeds the pace of its own program.

In the last month or two, more and more responsible scientists have been urging the Administration to admit it is in a space race and to turn on the steam.

These sentiments will be echoed in numberless debates before Congress.

Gloomy Prospects

Whatever steps are taken, they will not slow up immediately in visible accomplishments. Indications are that, for the Western world, 1960 may be the gloomiest of the three post-sputnik years in terms of space accomplishment.

At the moment, for instance, there is only a minimal 1960 program for shots to the vicinity of the moon. Mars will be in a favorable position on Oct. 1 for interception by a vehicle launched from Earth. But that date evidently will have to be skipped by this country.

The United States does plan a number of space shots with vehicles performing practical military and nonmilitary missions. Among them are test versions of reconnaissance, missile-warning, communications and navigation satellites.

But it is questionable whether they will have the kind of propaganda impact the Soviet Union manages to obtain by sending up heavier and heavier rocket vehicles.

Base Location Unknown

The location of the base from which the Soviet Union might launch new rocket giants is not known.

Only two launching sites for Soviet intercontinental ballistic missiles have been positively identified. One is at Kapustin Yar, near Stalingrad. The other is at Tyuratam near the Aral Sea.

The distance from the Aral Sea site to the Pacific target zone delineated in yesterday's announcement is about 7,000 miles.

To date, the two sides have recorded the following major accomplishments in the space race:

THE SOVIET UNION—Three earth satellites; three lunar probes, the last of which took pictures of the theretofore-unseen side of the moon and relayed them back to earth. The second Soviet lunik actually hit the moon. The second sputnik accomplished the first launching of a large animal, the dog Laika.

THE UNITED STATES—At least thirteen artificial satellites, including five Explorers, three Vanguards, Project Score, and four to six Discoverers (orbiting of two of them has not been unequivocally verified).